

**Instructor:** Alton Rice  
**Office Hours:** As Posted  
**Phone:** 331-5257                      **E-mail:** alton.rice@nwscc.edu

**Credit hours:** 3              **Contact:** 5 Hrs.                      **Lecture:** 2 hrs.                      **Lab:** 3 Hrs.

**Program/Degree:** Drafting and Design Technology / Associate in Applied Science Degree

**Description:** This course serves as an introduction to the field of drafting and design and provides a foundation for the entire curriculum. Topics include safety, lettering, tools and equipment, geometric constructions, and orthographic sketching. Upon completion, students should develop and use safe work habits, identify and properly use common drafting tools and equipment, construct geometric figures, and sketch basic orthographic views of objects.

**Prerequisites:** None

**Text:** Engineering Drawing and Design – Third Edition  
Madsen/Folkestad/Schertz/Shumaker/Stark/Turpin  
Delmar/Thompson Learning Publishers

**Supplies:** Standard Drafting Tool Kit

**Course Rationale:** Graphics is one of the designer's most effective tools for developing design concepts and solving three-dimensional problems. It is also the designer's best means of communicating ideas to others. Drafters help engineers and designers select materials. They also prepare construction documents and specifications and translate designs into working drawings and technical illustrations. As an introduction to the **Fundamentals of Drafting and Design Technology**, this course presents to the student drafter;

1. An introduction to Engineering Technology.
2. The role and use of drawing instruments.
3. The use of scales in engineering design.
4. Proper presentation of drawings and lettering
5. The construction of geometric shapes and application of plane geometry and trigonometry.

**Course Objectives:** Upon completion of this course, the student will be able to:

1. Recognize the participants in the technological and design team, and know their task.
2. Use drafting instruments to create basic geometric shapes.
3. Apply manual lettering and sketching techniques to drawings.
4. Identify materials and equipment used in engineering

## Assignment Schedule

Week/ Meeting	Topic	Assignments
1	Syllabus Chapter 1 - Introduction to Drawing and Design Pages 1 – 19	Questions – Chapter 1 & Others As Assigned By Instructor
2	Chapter 2 Sketching, Lettering and Lines Pages 22– 29	Question – Chapter 2 & Others As Assigned By Instructor
3	Chapter 2 Sketching, Lettering and Lines Pages 30– 34	As Assigned By Instructor
4	Chapter 2 Sketching, Lettering and Lines Pages 34– 39	<b>Chapter 1 Questions Due</b> & Others As Assigned By Instructor
5	Chapter 2 – Sketching, Lettering and Lines Pages 40 – 52	As Assigned By Instructor
6	Chapter 2 – Sketching, Lettering and Lines Instrument Practice <b>Review for Test 1</b>	<b>Chapter 2 Questions Due</b> & Others As Assigned By Instructor
7	Chapter 3 Drafting Equipment, Media and Reproduction Methods Pages 76 – 92 <b>Test 1 (Chapters 1&amp; 2)</b>	Questions – Chapter 3 & Others As Assigned By Instructor
8	Chapter 3 Drafting Equipment, Media and Reproduction Methods Pages 65 – 73	<b>Chapter 3 Questions Due</b> & Others As Assigned By Instructor
9	Chapter 5 – The Engineering Design Process Pages 134 – 143	Questions – Chapter 5 As Assigned By Instructor
10	Chapter 6 – Geometric Construction Pages 145 – 150 <b>Review for Test 2</b>	<b>Chapter 5 Questions Due</b> Questions – Chapter 6 & Others As Assigned By Instructor
11	Chapter 6 – Geometric Construction Pages 150 – 158 <b>Test 2 (Chapters 3 &amp; 5)</b>	As Assigned By Instructor

## Assignment Schedule (cont.)

Week	Topic	Assignments
12	Chapter 6 – Geometric Construction Pages 160 – 167	As Assigned By Instructor
13	Chapter 6 – Geometric Construction Instrument Practice	As Assigned By Instructor
14	Chapter 6 – Geometric Construction Instrument Practice <b>Review for Final Exam</b>	<b>Chapter 6 Questions Due</b> & Others As Assigned By Instructor
15	<b>Final Exam (Chapter 6)</b>	

<b><u>Grading Policy:</u></b> Write your score in each block!	<b><u>Score 1</u></b>	<b><u>Score 2</u></b>	<b><u>Score 3</u></b>	<b><u>Total Score (Possible Score)</u></b>
<b>Chapter Test – Chapters (1 &amp; 2), (3 &amp; 5) (150 Points Each)</b>	<b>Chap 1 &amp; 2 (150)</b>	<b>Chap 3 &amp; 5 (150)</b>		<b>(300)</b>
<b>Lab Assignments – Students will receive one lab grade (cumulative average of all assignments in that chapter) per chapter. Groups of assignments may be given one grade or assignments may be graded individually. This will be at the instructors' discretion. (100 Points Each Chapter)</b>	<b>Chap 2 (100)</b>	<b>Chap 3 &amp; 5 (100)</b>	<b>Chap 6 (100)</b>	<b>(300)</b>
<b>Final Exam – Chapter 6 (300 Points)</b>			<b>Chap 6 (300)</b>	<b>(300)</b>
<b>Attendance, Attitude, &amp; Participation (100 points)</b> Grade will be based on # of absences, daily classroom attitude, and participation in class discussions and completing assignments (Chapter questions).				<b>(100)</b>
<b>YOUR TOTAL SCORE IS</b>	<input type="text"/>			<b>(1000)</b>

**GRADES WILL BE ASSIGNED AS FOLLOWS:**

<b>A</b>	<b>=</b>	<b>900 to 1000 Points</b>
<b>B</b>	<b>=</b>	<b>800 to 899</b>
<b>C</b>	<b>=</b>	<b>700 to 799</b>
<b>D</b>	<b>=</b>	<b>600 to 699</b>
<b>F</b>	<b>=</b>	<b>Less Than 600</b>

**MISCELLANEOUS INFORMATION:**

- This syllabus is subject to amendment by the Instructor at his or her discretion. Students shall be notified of any such amendment.
- Northwest-Shoals Community College's policy regarding academic honesty will be **strictly enforced!** As a common courtesy to the instructor, you should attend classes promptly at specified starting times. If you are going to be absent, for any reason, you should contact the instructor as soon as possible. This will establish communications with the instructor about the possibility of making up your work.
- Make-up test and assignments shall be given on an individual basis and only with a proper excuse.
- Class attendance is an important part of learning, and is required in the Drafting curriculum. **If a student is absent more than 20% of class meetings that student may receive a grade of "F" for the course.**
- It is **"your"** responsibility to contact the instructor for make-up test and missed assignments. If you are absent for a test or assignment, because of a proper excuse, you must take the test or make up the assignment, at the next regularly scheduled class meeting. **If you refuse to do this, you will receive a "0" as the grade for that particular test or assignment.**
- Completing laboratory assignments is an integral part of your training. **All students must satisfactorily complete at least 75% of all daily lab assignments/ graded activities to receive a passing grade in the course.** The exact number of assignments for the course shall depend on the abilities of the entire class as a whole, and shall be determined by the end of the semester. **If a student does not complete "75%" of the total number of assignments, the student will receive a grade of "F" for the course.**

**AMERICANS WITH DISABILITIES ACT (ADA)**

It is the policy of Northwest-Shoals Community College to comply with the Americans with Disabilities Act (ADA). Any student covered under this act needing and desiring reasonable accommodations for this class should **notify the Instructor and the Department of Student Services, during the first week of class.**